SEE A-7-124-1

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-7-124
Relating to Certification of New Motor Vehicles

VOLKSWAGEN AG

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1988 model-year Volkswagen AG exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

Engine Family	Displacement Liters (Cubic Inches)	Exhaust Emission Control Systems (Special Features)
JVW2.1T5FVA0	2.1 (129)	Three-Way Catalyst Heated Oxygen Sensor (Electronic Port Fuel Injection)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

Loaded Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per mile	Nitrogen Oxides Grams per Mile
0-3750	0.41	9.0	1.0
3751-5750	0.50	9.0	1.0

The following are the certification emission values for this engine family:

Loaded Vehicle Weight	Hydrocarbons Grams per Mile	Carbon Monoxide Grams per Mile	Nitrogen Oxides Grams per Mile
0-3750	0.19	3.0	0.4
3751-5750	0.32	4.6	0.7

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 loaded vehicle weight class were certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the vehicle models listed have been granted an exemption from compliance with the requirements of the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s] ..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.) and, for the listed vehicles in the 0-3750 loaded vehicle weight class, with Health and Safety Code Section 43204.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 11th day of September, 1987.

K. D. Drachand, Chief
Mobile Source Division

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Volkswagen

Executive Order No. A-7-124
1. VW-V
2. VW-VS

Engine Family JVW2.1T5FVA0

Evaporative Family

Engine CID (Liters) 129 (2.1)

ABBREVIATIONS

Ignition System

CA-Centrifugal Advance
EEC-Electronic Engine Control
EI-Electronic Ignition
ESAC-Electronic Spark Advance Control
VA-Vacuum Advance
VR-Vacuum Retard
EIC: Electronic Ignition Control

Fuel System

CFI, CL, DID, DIP, EFI, MFI
nV-nVenturi Carburetor
VV-Variable Venturi

Exhaust Emissions Control System

AIP-Air Injection-Pump
AIV-Air Injection-Valve
CL-Closed Loop
EGR-Exhaust Gas Recirculation
EM-Engine Modification
OC-Oxidation Catalyst System
TOC-Trap Oxidizer Continual
TOP-Trap Oxidizer Periodical
TR-Thermal Reactor
TWC-Three-Way Catalyst System

Special Features

CCV-Combustion Chamber Valve
CFI-Central Fuel Injection
DID-Diesel Injection-Direct
DIP-Diesel Injection-Prechamber
EFI-Electronic Fuel Injection
IC - Intercooler
MFI-Mechanical Fuel Injection
TC-Turbocharged

VEHICLE MODELS:

1. Vanagon Bus
   Vanagon Kombi
   Vanagon Campmobile

2. Vanagon snycro Bus
   Vanagon syncro Kombi
   Vanagon syncro Campmobile

DRIVE SYSTEM: 1. RWD Rear Engine/ Two -Wheel Drive
2. Four Wheel Drive

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1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

__ Passenger Cars X Light-Duty Trucks __ Medium-Duty Vehicles X Gas __ Diesel

Manufacturer Volkswagen Page

Engine Family JVW2.1T5FVA0 Engine Code MV

ECS (Special Features) FI/TWC/EGS (EPFI/TWC/HOS) CID (Liter)-Type 129 (2.1) - 4 HO

Engine Code	Vehicle Models (If Coded see attachment) (Hp)	Trans.	Equiv. Test Weight	Ign. System Part No.	Fuel System Part No.	EGR Valve Part No.	Catalyst Part No.
MV	Vanagon Bus (16.4) Vanagon Kombi (16.4)	M 4	3,750	EIC Distributor 025905205 M	Fuel pump 043906091 Fuel pressure governor 025133035 Fuel injection control 025906022 ECU 025 906 022 D	n. a.	025131701 025131701 A
	Vanagon Bus (16.4) Vanagon Kombi (16.4)	A 3	3,875				
	Vanagon Campmobile (17.4)	M 4/A 3	4,000				
	Vanagon Syncro Bus/Kombi (19.2)	M 4+ Creeper	4,000				
	Campmobile (20.0)		4,250				
	Hp list: see page 05-01						

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

*Add 10% to dyno test HP for air conditioning usage.